What is Claimed Is:

1. A vertical symmetrical vibrating mill comprising:

a top vibrating tube and a bottom vibrating tube, the top vibrating tube and the bottom vibrating tube being connected so as to form a single vibrating body that is at least one of supported and suspended via a support element, wherein the top vibrating tube and the bottom vibrating tube are located on opposite sides of a reference plane of symmetry, and wherein the top vibrating tube and the bottom vibrating tube each have a common axis that is perpendicular to the reference plane of symmetry; and

a plurality of exciter elements including at least one exciter element connected to each of the top vibrating tube and the bottom vibrating tube, each one of the plurality of exciter elements configured to cause an excitation in a direction that is substantially tangential to the vibrating tubes, each one of the plurality of exciter elements configured to at least one revolve and oscillate at the same synchronized frequency, wherein an amount of power that is provided to each one of the exciter elements is proportional to a distance between the exciter element and the reference plane of symmetry.

2. The vibrating mill of claim 1, wherein the common axis of the top vibrating tube and the bottom vibrating tube is oriented in a direction corresponding to the direction of gravity.

3. The vibrating mill of claim 1, wherein the frequency at which each one of the plurality of exciter elements is configured to at least one revolve and oscillate is one of constant and variable.

4. The vibrating mill of claim 1, wherein each one of the exciter elements are connected laterally to one of the vibrating tubes.

5. The vibrating mill of claim 1, wherein the plurality of exciter elements are located so as to be grouped in pairs.

6. The vibrating mill of claim 5, wherein, in a pair of exciter ele exciter elements are spaced equidistantly around the circumference of the respective vibrating tube.

7. The vibrating mill of claim 6, wherein, in a pair of exciter elements, the exciter elements are located in a plane that is parallel to the reference plane of symmetry.

8. The vibrating mill of claim 7, wherein a distance between the plane that includes a first pair of exciter elements connected to the top vibrating tube and the reference plane of symmetry is equal to a distance between the plane including a second pair of exciter elements connected to the bottom vibrating tube and the reference plane of symmetry.

9. The vibrating mill of claim 8, wherein an axis of rotation of the exciter elements of the top vibrating tube define an angle between 0° to 180° relative to the common axis of the top vibrating tube and the bottom vibrating tube.

10. The vibrating mill of claim 8, wherein an axis of rotation of the exciter elements of the bottom vibrating tube define an angle between 0° to 180° relative to the common axis of the top vibrating tube and the bottom vibrating tube.

11. The vibrating mill of claim 9, wherein each one of the exciter elements rotates in the same direction.

12. The vibrating mill of claim 10, wherein each one of the exciter elements rotates in the same direction.

13. The vibrating mill of claim 12, wherein the exciter elements of the top vibrating tube are configured to rotate in the same direction as the exciter elements of the bottom vibrating tube.

14. The vibrating mill of claim 12, wherein the exciter elements vibrating tube are configured to rotate in the opposite direction as the exciter elements of the bottom vibrating tube.

15. The vibrating mill of claim 1, wherein the vibrating tubes are dividable into two chambers.

16. The vibrating mill of claim 15, wherein each chamber has a grid to contain a grinding media.

17. The vibrating mill of claim 16, wherein the grid defines openings that are smaller than the smallest dimension of the grinding media.

18. The vibrating mill of claim 1, wherein the exciter elements operate electromagnetically.

19. The vibrating mill of claim 1, wherein the vibrators include eccentric counterweights.

20. The vibrating mill of claim 19, wherein the exciter elements are activated by an electric motor.

21. The vibrating mill of claim 20, wherein the exciter elements are activated by a motor situated internally with respect to the exciter element.

22. The vibrating mill of claim 20, wherein the exciter elements are activated by a motor situated externally with respect to the exciter element, the motor and the exciter elements coupled via a sliding element and a cardan joint.

23. The vibrating mill of claim 19, wherein the exciter elements are activated by

a hydraulic motor.

24. The vibrating mill of claim 19, wherein the exciter elements are activated by pneumatic motors.

25. The vibrating mill of claim 1, wherein the support element is located at the reference plane of symmetry.

26. The vibrating mill of claim 25, wherein the support element is configured such that the top vibrating tube is supported above the reference plane of symmetry and the bottom vibrating tube is suspended below the reference plane of symmetry.

27. The vibrating mill of claim 1, wherein the support element includes at least one of a set of springs and a set of elastomeric isolators.

28. The vibrating mill of claim 18, wherein the exciter elements are electromagnetic vibrators.

29. The vibrating mill of claim 28; wherein the axis of oscillation of the exciter elements of the top and bottom vibrating tubes has an angle of inclination between 0° to 90°.

30. The vibrating mill of claim 28, wherein the exciter elements of the top vibrating tube are aligned relative to the exciter elements of the bottom vibrating tube.

31. The vibrating mill of claim 28, wherein the exciter elements of the top vibrating tube are misaligned relative to the exciter elements of the bottom vibrating tube.

32. The vibrating mill of claim 8, wherein the power of the exciter elements in each plane that includes the first pair of exciter elements and the second pair of exciter

elements is directly proportional to the distance between the plane and the refer of symmetry.

33. The vibrating mill of claim 20, wherein the electrically-driven exciter elements are operated via variable speed drive units controlled by a controller device.

34. The vibrating mill of claim 33, wherein the controller device is a programmable logic controller.

35. The vibrating mill of claim 33, wherein the controller device is coupled to a user interface for at least one of providing data to the controller device and for receiving operating data for display to a user.

36. The vibrating mill of claim 35, wherein the operating data is generated by an encoder.

37. The vibrating mill of claim 23, wherein the hydraulically-driven exciter elements are operated via proportional valves connected to a hydraulic power supply, the proportional valves being controlled by a controller device.

38. The vibrating mill of claim 37, wherein the controller device is a programmable logic controller.

39. The vibrating mill of claim 37, wherein the controller device is coupled to a user interface for at least one of providing data to the controller device and for receiving operating data for display to a user.

40. The vibrating mill of claim 39, wherein the operating data is generated by an encoder.

41. The vibrating mill of claim 24, wherein the pneumatically-driv elements are operated via proportional valves connected to a pneumatic power supply, the proportional valves being controlled by a controller device.

42. The vibrating mill of claim 41, wherein the controller device is a programmable logic controller.

43. The vibrating mill of claim 41, wherein the controller device is coupled to a user interface for at least one of providing data to the controller device and for receiving operating data for display to a user.

44. The vibrating mill of claim 43, wherein the operating data is generated by an encoder.

45. A method for grinding a substance, comprising the steps of:

providing a vertical symmetrical vibrating mill, the vertical symmetrical vibrating mill including a top vibrating tube and a bottom vibrating tube, the top vibrating tube and the bottom vibrating tube being connected so as to form a single vibrating body that is at least one of supported and suspended via a support element, wherein the top vibrating tube and the bottom vibrating tube are located on opposite sides of a reference plane of symmetry, and wherein the top vibrating tube and the bottom vibrating tube each have a common axis that is perpendicular to the reference plane of symmetry, the vertical symmetrical vibrating mill also including a plurality of exciter elements including at least one exciter element connected to each of the top vibrating tube and the bottom vibrating tube, each one of the plurality of exciter elements configured to cause an excitation in a direction that is substantially tangential to the vibrating tubes, each one of the plurality of exciter elements configured to at least one revolve and oscillate at the same synchronized frequency;

placing the substance into at least one of the top vibrating tube and the bottom vibrating tube;

exciting the plurality of exciter elements by providing an amount c each one of the exciter elements that is proportional to a distance between the exciter element and the reference plane of symmetry such that grinding media stored in the at least one of the top vibrating tube and the bottom vibrating tube grinds the substance.

46. The method of claim 45, further comprising the step of positioning the vertical symmetrical vibrating mill such that the common axis of the top vibrating tube and the bottom vibrating tube is oriented in a direction corresponding to the direction of gravity.

47. The method of claim 45, further comprising the step of at least one revolving and oscillating of the plurality of exciter elements at a frequency which is one of constant and variable.

48. The method of claim 45, further comprising the step of connecting each one of the exciter elements laterally to one of the vibrating tubes.

49. The method of claim 45, wherein pairs of the exciter elements are located in a plane that is parallel to the reference plane of symmetry.

50. The method of claim 49, wherein a distance between the plane that includes a first pair of exciter elements connected to the top vibrating tube and the reference plane of symmetry is equal to a distance between the plane including a second pair of exciter elements connected to the bottom vibrating tube and the reference plane of symmetry.